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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,643	09/05/2000	Pak Shing Chau	RA-194(RA194.P.US)	7634

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EXAMINER	
BAYARD, EMMANUEL	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/654,643	CHAU ET AL.	
	Examiner	Art Unit	
	Emmanuel Bayard	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20-23* is/are allowed.

6)☒ Claim(s) *1-12,14 and 16-19* is/are rejected.

7)☒ Claim(s) *13 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is in response to amendment filed 4/03/06 in which claims 1-23 are pending. The applicant's amendments have been fully considered therefore but they are moot based on the new ground of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1"xxxare rejected under 35 U.S.C. 102(b) as being anticipated by Measor et al U.S. Patent No 5,699,386.

As per claims 1 and 12, Measor et al teaches a communication system comprising: an semiconductor device is the same as the claimed first printed circuit board (see fig.3 and col.3, lines 41-46); a conductive path (see col.2, lines 30-35) affixed to the printed circuit board; a driver circuit (see figs. 2, 29, 72 elements 1, 4, 2101, 4010) affixed to the first printed circuit board and coupled to the conductive path to output onto the conductive path a signal having a voltage level that varies time between at least three distinct levels representative of at least three distinct digital values (see fig.3 element 70 and col.4, lines 34-45), the driver circuit including an equalization circuit (see fig.3 element 74 and col.4, lines 26-40) to adjust the voltage level of the signal output by the driver circuit at a first time according to a digital value represented by the signal at a previous time; and a receiver (see fig.3 elements 1-3, 26-

27 and col.4, lines 24-25) circuit affixed to the first printed circuit board and coupled to receive the signal from the conductive path to determine which of the at least three distinct digital values is represented by the signal at a given time.

As per claim 2, Measor et al includes wherein the driver and receiver circuits are respective integrated circuits affixed to the first printed circuit board (see col.3, lines 45-46).

As per claim 3, Measor et al includes wherein the driver and receiver circuits and conductive path are incorporated within a common integrated circuit that is affixed to the first printed circuit board (see fig.3 and col.3, lines 45-46.

As per claim 4, Measor et al includes wherein at least one of the driver and receiver circuits is coupled to a second printed circuit board that is affixed to the first printed circuit board (see fig.3).

As per claim 5, Measor et al inherently includes wherein the second printed circuit board is removably affixed to the first printed circuit board (see fig.3).

As per claim 6, Measor et al includes wherein the driver circuit receives a plurality of input signals, and the equalization circuit (see fig.3 element 74) receives and buffer is functionally equivalent to the claimed (delays) said plurality of input signals (see fig.3 element 86 and col.7, line 18).

As per claim 7, Measor et al includes wherein the driver circuit receives a plurality of input signals, and the equalization circuit receives and inverts said plurality of input signals (see col.4, lines 52-53).

As per claim 8, Measor et al includes wherein the equalization circuit compensates (see col.4, lines 30-34) for attenuation of the signal in the conductive path.

As per claim 9, Measor et al includes wherein the equalization circuit compensates (see col.4, lines 30-34) for reflection of the signal in the conductive path.

As per claim 10, Measor et al includes wherein the equalization circuit compensates (see col.4, lines 30-34) for crosstalk generated by the signal in a second conductive path.

As per claim 11, Measor et al includes wherein said signal has a fourth voltage level that varies in time between at least three distinct levels, the fourth level representative of a fourth digital value that is distinct from the at least three distinct digital values (see fig.2 and col.3, lines 23-26).

As per claim 14, Measor et al includes, wherein said equalization mechanism includes an element adapted to invert said input signals (see col.4, lines 52-53).

As per claim 16, Measor et al includes wherein said main driver and said auxiliary driver each include a current source, and said signal levels are voltages that are a range between ground and a positive voltage (see fig.3).

As per claim 17, Measor et al includes wherein said equalization mechanism is configured to compensate (see col.4, lines 52-53) for attenuation of said signal over a signal line.

As per claim 18, Measor et al includes, wherein said equalization mechanism is configured to compensate (see col.4, lines 30-34) for reflection of said signal over a signal line.

As per claim 19, Measor et al includes wherein said signal is transmitted over a first signal line and creates crosstalk in a second signal line, and said equalization mechanism is coupled between said first and second lines and configured to compensate (see col.4, lines 30-34) for said crosstalk in said second line.

Allowable Subject Matter

3. Claims 20-23 are allowed over the prior art of record.

4. Claims 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowance: the prior art of record fail to anticipate or render obvious the recited features of claim 13, 15 and 20.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571 272 2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Emmanuel Bayard
Primary Examiner
Art Unit 2611

EMMANUEL BAYARD
PRIMARY EXAMINER

9/15/06